#### **BREAKWATERS**

#### INTRODUCTION

Breakwaters are protective structures usually built offshore to protect beaches, bluffs, dunes or harbor areas from wave action. However, because offshore breakwaters are costly to build, they are seldom constructed to protect the natural features alone, but are generally constructed for navigational purposes also. Breakwaters can be either rigid in construction or floating. The rigid breakwaters, which are usually constructed of riprap or rock, have both beneficial and detrimental effects on the shore. All breakwaters eliminate wave action and thus prevent the freeflow of sand along the coast and starve the downstream beaches. Floating breakwaters do not have the negative effect on sand movement, but cannot withstand extensive wave action and thus are impractical with present construction methods in many areas. (Sec. 1 of Ord. 84-015 adopted 2-27-84)

#### **POLICIES**

- 1. Give preference to floating breakwaters rather than solid landfill or rigid types in order not to inhibit sand movement and aquatic life.
- 2. Construct solid breakwaters only where design modifications can eliminate potentially significant detrimental effects on the movement of sand and circulation of water.
- 3. Minimize to the absolute extent feasible, restrictions on the public use of the water surface which might result from breakwater construction.
- 4. Encourage the multiple use of breakwaters to increase public access to and enjoyment of the shoreline.

#### REGULATIONS

#### General

- 1. Applications for breakwaters shall provide (as a minimum) the following information:
  - a. Purpose of breakwater;
  - b. Construction material;
  - c. Method of construction;
  - d. Direction of net longshore drift (when appropriate);
  - e. Direction of prevailing winds and strongest tidal current.
- 2. Breakwaters shall not impede longshore sand and gravel transport unless such impedance is found to be beneficial.
- Solid type public breakwaters shall be designed to allow pedestrian access on their tops where safe and feasible.
- 4. Breakwaters shall conform to all design requirements of the State Department of Fisheries.

### **Natural Environment**

1. Breakwaters are not permitted in the Natural Environment.

### **Conservancy Environment**

- 1. Floating breakwaters are permitted in the Conservancy Environment when they do not impede sand movement or aquatic life.
- 2. Solid type breakwaters are permitted in the Conservancy Environment only upon issuance of a conditional use permit.
- 3. Breakwaters in the Conservancy Environment must be visually compatible with their surroundings.

### **Rural Environment**

1. Breakwaters are allowed in the Rural Environment subject to the General Regulations.

# **Suburban Environment**

1. Breakwaters are allowed in Suburban Environment subject to the General Regulations.

## **Urban Environment**

1. Breakwaters are allowed in the Urban Environment subject to the General Regulations.